PATENT USSN 09/750,990

REMARKS

Consideration and entry of this paper and reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the amendments and remarks and attachments herewith, which place the application into condition for allowance or in better condition for appeal.

STATUS OF THE CLAYMS AND FORMAL MATTERS

Claims 44-69 are remain pending, amended without prejudice, without admission, I. without surrender of subject matter, and without any intention of creating any estoppel as to equivalents. No new matter is added.

It is submitted that the claims, as originally presented and as herein presented, are patentably distinct over the prior art cited by the Examiner, and that these claims are in full compliance with the requirements of 35 USC 112. Changes to the claims, as presented herein, are not made for the purpose of patentability within the meaning of 35 USC sections 101, 102, 103 or 112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicants are entitled. Support for the new claims is found throughout the specification and in the claims as originally presented.

THE SECTION 112 REJECTIONS ARE OVERCOME

Claims 33-34 and 48-69 are rejected under 35 U.S.C. §112, first paragraph, and claims 44-69 are rejected under 35 U.S.C. §112, second paragraph. The previously-filed comments on the Section 112 rejections are hereby incorporated herein by reference and supplemented as follows, with the Examiner invited to review the previously-filed Amendment.

With respect to the Section 112, first paragraph, rejection, the claims are amended to provide that the enzyme has esterase activity, with a dependent claim providing that the enzyme has lipase activity or the enzyme having esterase activity is a mixture of enzymes.

The Examiner, the PTO, and all who may read this paper after the patent issues, are respectfully advised that this claim amendment is not intended to be narrowing or to give rise to any estoppel. In particular, the claim amendment is explicitly not meant to exclude enzymes that may have multiple activities. For example, enclosed is Galliard et al., Phytochemistry 13:1731-35 (1974) which describes a lipid acyl hyrolase having "esterase" activity, in particular, galactolipase and lyophospholipase activity. The Galliard enzyme is cited as an example of a

known enzyme that has multiple activities; and, there is no intention by the present amendment to exclude from the claims enzymes having multiple activities.

Nonetheless, as the Section 112, first paragraph, rejection seeks to avoid the claim from reading upon "any random enzyme", it is believed that the Section 112, first paragraph, rejection, is met and overcome with the herein amendments.

With respect to the bases for Section 112, second paragraph, rejection, the term "derivative" no longer appears in the claims. As to "spreads", hydroxy group, "protein hydrolysates", care has been taken to separate terms in *Markush* claims so as to avoid overlap. However, the Examiner is respectfully also directed to MPEP 2173.05(h) which specifies that there can be some overlap among members of a *Markush* group, providing the example that a there can be some overlap among members of a *Markush* group, providing the example that a Markush group that recited "halogen" and "chloro" is acceptable, even though "halogen" is generic to "chloro".

In this regard, particularly in Europe, "spreads" and "margarine" are two different classes of food: EC Council Regulation 2991/94 of 5 December 1994 refers to products obtained from vegetable and/or animal fats which have a fat content of not less than 80% but less than 90% as "margarine", whereas "spreads" are referred to products obtained from vegetable and/or animal fats which have a fat content of less than 80%. Using this definition, :margarine" does not encompass "spreads" and vice versa; and "spreads" does not encompass "whipped cream" or "mayonnaise"; and "margarine" does not encompass "whipped cream" or "mayonnaise".

With respect to the second functional ingredient, the claims are amended to recite specific second constituents.

Specifically, claim 44 relates to a process for preparing a food stuff comprising an emulsifier, the process consisting essentially of (i) contacting a food material containing a fatty acid ester and a second constituent having a hydroxy group with an enzyme having esterase activity such that an emulsifier is generated by the enzyme from the fatty acid ester and a second functional ingredient is generated from the second constituent, and (ii) inactivating or denaturing the enzyme to provide the foodstuff comprising the emulsifier, the fatty acid ester and the enzyme in an inactive or denatured form.

Independent claim 50 specifies that the second constituent is a sugar. Independent claim 55 provides that the second constituent is maltodextrin.

Independent claim 56 calls for the second constituent to be a hydroxy acid selected from the group consisting of citric acid, tartaric acid, lactic acid and ascorbic acid.

Independent claim 57 recites that the second constituent is an alcohol. Independent claim 58 provides that the second constituent is ascorbic acid, or a protein hydrolysate. And, independent claim 59 specifies that the second constituent is selected from the group consisting of proteins, amino acids, peptides, and mixtures thereof.

Claim 52, dependent on claim 44 provides that the second constituent is selected from the group consisting of, polyvalent alcohols, ethanol, sugars, dextrins, sorbitol, mannitol, fruit acids and hydroxy acids, and mixtures thereof. Claim 53, dependent on claim 44, recites that the second constituent is glycerol. Claim 54, dependent on claim 50 provides that the sugar selected from the group consisting of sucrose, fructose, glucose, lactose, and galactose.

In the instant invention, the food material is contacted with an enzyme having esterase activity. The food material contains a fatty acid ester, and a second constituent having a hydroxy group, or as discussed above. Contacting the enzyme with the food material results in two distinct products: (1) the emulsifier, and (2) the second functional ingredient. The second functional ingredient can be an emulsifier, hydrocolloid, preservative, antioxidant, flavoring agent, coloring agent, or viscosity modifier, and, this is a function of the specific recitation of of the second constituent. Accordingly, it is earnestly believed that the second functional ingredient need not also be further specified in the claims, because by virtue of the teachings in the application (e.g., pages 3-4), and the recitation of the second constituent, the claim term "second functional ingredient" is quite clear and definite.

Accordingly, reconsideration and withdrawal of the Section 112 rejections is respectfully requested.

THE ART REJECTIONS ARE OVERCOME

Claims 44-53 and 60-69 are rejected under 35 U.S.C. §102(b) as allegedly anticipated by Щ. Van Den Ouweland et al., U.S. Patent No. 5,695,802. Claims 44-53 and 60-69 are rejected under 35 U.S.C. §102(b) as allegedly anticipated by Moore et al., EP 0 652 289. And, claims 44-69 are rejected under 35 U.S.C. §102(e) as allegedly anticipated by Michelsen et al., U.S. Patent No. 6,143,543. Each of these rejections are addressed below, and are traversed. The previously-filed comments on each of these documents are hereby incorporated herein by reference and

supplemented, as follows, with the Examiner respectfully invited to review the previous Amendment.

Michelsen Fails To Teach or Suggest The Instant Invention & Is Not Available

Submitted herewith is the Declaration of Birgit Michelsen, Ronald Peter De Vries, Jacob

Visser, Jorn Borch Søe, Charlotte Horsmans Poulsen, and Masoud R. Zargahi, the named

inventors on U.S. Patent No. 6,143,543, assigned to Danisco A/S. It is also mentioned Jorn

Borch Søe, a co-inventor on U.S. Patent No. 6,143,543, is the named inventor on the present

application, which is also assigned to Danisco A/S.

In citing Michelsen et al., the Office Action relies upon the term "glyceride oligomers" in U.S. Patent No. 6,143,543.

The Declarants, the inventors on U.S. Patent No. 6,143,543, and the inventor on the instant application, respectfully submit that the reliance on "glyceride oligomers" in U.S. Patent No. 6,143,543 is misplaced, such that U.S. Patent No. 6,143,543, or any corresponding foreign equivalent thereto, fails to teach or suggest the invention of the present application.

More specifically, while U.S. Patent No. 6,143,543 may mention "glyceride oligomers", this is not a term that is meaningful to one skilled in the art in the context of the disclosure of U.S. Patent No. 6,143,543.

In particular, it is respectfully submitted that the skilled artisan would recognize that this term had arisen from a typographical error, and would have assumed that the correct term was "glucoside oligomers," since U.S. Patent No. 6,143,543 relates to sugar oligomers.

That is, the Declarants, the inventors on U.S. Patent No. 6,143,543, and the inventor on the instant application, are explicitly stating that the term "glyceride oligomers" in U.S. Patent No. 6,143,543 is an obvious typographical error; the skilled artisan would have clearly recognized that the term should have been "glucoside oligomers".

They further understand that a Request for Certificate of Correction as to U.S. Patent No. 6,143,543 to correct the error in the recitation of "glyceride oligomers", i.e., change "glyceride oligomers" to -- glucoside oligomers --, is being prepared and filed (copy attached).

They state that typographical error in Michelsen et al. arose by inadvertence, without any deceptive intent. Indeed, in this regard, the Declarants note that English is not their first language, and that they missed this inadvertent typographical error during their reading of the application that matured into 6,143,543.

The Declarants further state that U.S. Patent No. 6,143,543 does not teach or suggest the generation of an emulsifier, and that the foodstuff of U.S. Patent No. 6,143,543 does not comprise fatty acid esters, as in the invention of the present claims.

Accordingly, it is respectfully submitted that the reliance on "glyceride oligomers" in U.S. Patent No. 6,143,543 is misplaced, and that U.S. Patent No. 6,143,543, or any corresponding foreign equivalent thereto, fails to teach or suggest the invention of the present application.

Furthermore, 35 U.S.C. §102(e) provides that a person shall be entitled to a patent unless the invention was described in a patent granted on an application for patent "by another" filed in the United States before the invention by the applicant for patent.

The Declarants, the inventors on U.S. Patent No. 6,143,543, and the inventor on the instant application, state that they are not "another" as to each other, such that U.S. Patent No. 6,143,543 is not available as a reference under 35 U.S.C. §102(e) against the present application, as U.S. Patent No. 6,143,543 is not "by another" as to the present application.

More specifically, Declarants Birgit Michelsen, Ronald Peter De Vries, Jacob Visser, Jorn Borch Søe, Charlotte Horsmans Poulsen, and Masoud R. Zargahi are the named inventors on U.S. Patent No. 6,143,543, assigned to Danisco A/S and, co-inventor Declarant Jorn Borch Søe on U.S. Patent No. 6,143,543, is the named inventor on the the present application, which is also assigned to Danisco A/S.

The Declarants particularly state that Jorn Borch Søe is not "another" as to Birgit Michelsen, Ronald Peter De Vries, Jacob Visser, Jorn Borch Søe, Charlotte Horsmans Poulsen, and Masoud R. Zargahi.

The Declarants also particularly state that Birgit Michelsen, Ronald Peter De Vries, Jacob Visser, Jorn Borch Søe, Charlotte Horsmans Poulsen, and Masoud R. Zargahi is not "another" as to Jorn Borch Søe.

The Declarants further state that subject matter of U.S. Patent No. 6,143,543 relied upon by the Examiner in the present application was invented by Jorn Borch Søe, the inventor on the present application.

Accordingly, U.S. Patent No. 6,143,543 is not "by another" and is thus not available against the present application under 35 U.S.C. §102(e).

Even further still, 35 U.S.C. §103(c) provides that "[s]ubject matter developed by another person, which qualifies as prior art under one or more of subsections (e), (f), and (g) of section 102 ... shall not preclude patentability ... where the subject matter and the claimed invention, were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person."

The subject matter of the present application and the claimed invention of U.S. Patent No. 6,143,543, at the time the inventions were made, are and were owned by the same person, Danisco A/S.

And, the Declarants, the inventors on U.S. Patent No. 6,143,543, and the inventor on the instant application, as to the claimed invention of U.S. Patent No. 6,143,543 and the subject matter of the present application, were, at the times these inventions were made, under an obligation to assign them to the same person, Danisco A/S.

Accordingly, even if U.S. Patent No. 6,143,543 was available against the present application under 35 U.S.C. §102(e), it cannot preclude the patentability of the claims of the present application, pursuant to 35 U.S.C. §103(c).

In view of the foregoing, it is respectfully submitted that U.S. Patent No. 6,143,543 fails to teach or suggest the instant invention, and is not available against the present application.

Reconsideration and withdrawal of the Section 102(e) rejection based on Michelsen et al. are respectfully requested.

Van Den Ouweland Fails To Teach or Suggest The Instant Invention

Van Den Ouweland et al. does not disclose or suggest all the elements of the instant claims.

Specifically, claim 44 relates to a process for preparing a food stuff comprising an emulsifier, the process consisting essentially of (i) contacting a food material containing a fatty acid ester and a second constituent having a hydroxy group with an enzyme having esterase activity such that an emulsifier is generated by the enzyme from the fatty acid ester and a second functional ingredient is generated from the second constituent, and (ii) inactivating or denaturing the enzyme to provide the foodstuff comprising the emulsifier, the fatty acid ester and the enzyme in an inactive or denatured form.

Independent claim 50 specifies that the second constituent is a sugar. Independent claim 55 provides that the second constituent is maltodextrin.

Independent claim 56 calls for the second constituent to be a hydroxy acid selected from the group consisting of citric acid, tartaric acid, lactic acid and ascorbic acid.

Independent claim 57 recites that the second constituent is an alcohol. Independent claim 58 provides that the second constituent is ascorbic acid, or a protein hydrolysate. And, independent claim 59 specifies that the second constituent is selected from the group consisting of proteins, amino acids, peptides, and mixtures thereof.

Claim 52, dependent on claim 44 provides that the second constituent is selected from the group consisting of, polyvalent alcohols, ethanol, sugars, dextrins, sorbitol, mannitol, fruit acids and hydroxy acids, and mixtures thereof. Claim 53, dependent on claim 44, recites that the second constituent is glycerol. Claim 54, dependent on claim 50 provides that the sugar selected from the group consisting of sucrose, fructose, glucose, lactose, and galactose.

In the instant invention, the food material is contacted with an enzyme having esterase activity. The food material contains a fatty acid ester, and a second constituent having a hydroxy group, or as discussed above. Contacting the enzyme with the food material results in two distinct products: (1) the emulsifier, and (2) the second functional ingredient. The second functional ingredient can be an emulsifier, hydrocolloid, preservative, antioxidant, flavoring agent, coloring agent, or viscosity modifier. The present invention results in the *in situ* formation of two functional ingredients: The emulsifier and the second functional ingredient. That the present invention is taking place *in situ*, i.e., in the foodstuff itself, and is not a method for preparing a composition to be added to food, is through the claim language stating that the "process [is] for preparing a foodstuff suitable for consumption" and by the claim language calling for "inactivating or denaturing the enzyme to provide the foodstuff".

In this regard, the Examiner is respectfully reminded that ALL words in the claims must be considered in evaluating the patentibility of the claims over the prior art. In re Wilson, 165; see also In re Swinehart, 169 (U.S.P.Q. 227 (C.C.P.A. 1971) ("point of novelty" was "transparen[cy]"; Court held that "functional" or "use" use laiming by what something does); In re Duva, 156 U.S.P.Q. 90 (C.C.P.A. 1967) (prior art rejection of aqueous claiming by what something does); In re Duva, 156 U.S.P.Q. 90 (C.C.P.A. 1967) (prior art rejection of aqueous solution " for depositing gold" reversed due to PTO failure to consider the "for depositing gold" recitation because "all factual differences which may be properly noted in any portion of a claim must be included within the basis for "all factual differences which may be properly evaluate the difference between the invention defined in a claim comparison with the prior art if we are to properly evaluate the difference between the invention defined in a claim that the teachings of a reference", i.e., "every portion of the ... claims must be considered"). For instance, it is well-and the teachings of a reference", i.e., "every portion of the ... claims must be considered"). For instance, it is well-and the teachings of a reference in the preamble is essential to point out the claimed invention and give meaning and vitality established law that where the preamble is essential to point out the claimed invention and give meaning and vitality to the claim, it is given the effect of a limitation. See, e.g., Diversitech Corp. v. Century Steps Inc., 850 F.2d 675, 7 to the claim, it is given the effect of a limitation. See, e.g., Diversitech Corp. v. Century Steps Inc., 850 F.2d 675, 7 to the claim, it is given the effect of a limitation. See, e.g., Diversitech Corp. v. Century Steps Inc., 850 F.2d 675, 7 to the claim, it is given the effect of a limitation. See, e.g., Diversitech Corp. v. Century Steps Inc., 850 F.2d 675, 7 to the claim, it is given the effect of a limitation. See

Van Den Ouweland relates to a flavoring composition and methods for making it. That is, Van Den Ouweland is instantly distinguishable from the present invention in that

Van Den Ouweland is directed to the preparation of an ingredient to be added to food, i.e., a "flavoring composition". Van Den Ouweland does not teach or suggest a process for preparing a foodstuff that results in the in situ formation of two functional ingredients, as in the instant

invention.

The Van Den Ouweland flavoring composition is the diglyceride fraction of a hydrolysate of vegetable or animal fat. Thus, for instance, butter or milk is admixed with water and an enzyme, such as a lipase, under conditions of stirring and increased temperature. The oily and aqueous phases are then separated, with the oily phase deodorized via distilling, to obtain the hydrolysate. The hydrolysate is then subjected to fractionation to obtain the diglyceride fraction (separated from the triglyceride and monoglyceride phases). The thus obtained diglyceride fraction is then added to food as a "flavoring composition". Neither the hydrolysate nor the diglyceride fraction therefrom is a "foodstuff".

There is no teaching or suggestion of contacting a food material containing a fatty acid ester, and a second constituent having a hydroxy group, or as discussed above, as in the instant invention, for the in situ preparation, i.e., the preparation in the foodstuff itself, of an emulsifier and second functional ingredient. There is no teaching or suggestion of "preparing a foodstuff suitable for consumption" or of "inactivating or denaturing the enzyme to provide the foodstuff" as in the instant invention. Indeed, Van Den Ouweland does not disclose or suggest the presence of the second constituent in the food material as in the instant claims, nor the generation of the second functional ingredient from the second constituent, as in the present invention.

In addition, it is noted that claims 54-59 were not subject to the rejection based on Van Den Ouweland, and thus, claims 50 and 54-59, and the claims dependent thereon should be free of this rejection.

Accordingly, Van Den Ouweland et al. does not teach or suggest the instant invention. Reconsideration and withdrawal of the Section 102(b) rejection based on Van Den Ouweland et al. are respectfully requested.

^{157, 45} U.S.P.Q. 347 (C.C.P.A. 1940); Ex parte Varga, 189 U.S.P.Q. 204 (P.O.B.A. 1973); see also Kropa v. Robie et al., 187 F.2d 150, 88 U.S.P.Q. 478 (C.C.P.A. 1951).

Moore Fails To Teach or Suggest The Instant Invention

Moore is akin to Van Den Ouweland. More specifically, Moore relates to a multi-step process which includes a first step wherein triglycerides are subjected to enzymatic action in the presence of diglycerides, and a second step wherein the diglyceride concentration is reduced, optionally after addition of fatty acids.

Claim 44 relates to a process for preparing a food stuff comprising an emulsifier, the process consisting essentially of (i) contacting a food material containing a fatty acid ester and a second constituent having a hydroxy group with an enzyme having esterase activity such that an emulsifier is generated by the enzyme from the fatty acid ester and a second functional ingredient is generated from the second constituent, and (ii) inactivating or denaturing the enzyme to provide the foodstuff comprising the emulsifier, the fatty acid ester and the enzyme in an inactive or denatured form.2

Independent claim 50 specifies that the second constituent is a sugar. Independent claim 55 provides that the second constituent is maltodextrin.

Independent claim 56 calls for the second constituent to be a hydroxy acid selected from the group consisting of citric acid, tartaric acid, lactic acid and ascorbic acid.

Independent claim 57 recites that the second constituent is an alcohol. Independent claim 58 provides that the second constituent is ascorbic acid, or a protein hydrolysate. And, independent claim 59 specifies that the second constituent is selected from the group consisting of proteins, amino acids, peptides, and mixtures thereof.

Claim 52, dependent on claim 44 provides that the second constituent is selected from the group consisting of, polyvalent alcohols, ethanol, sugars, dextrins, sorbitol, mannitol, fruit acids and hydroxy acids, and mixtures thereof. Claim 53, dependent on claim 44, recites that the second constituent is glycerol. Claim 54, dependent on claim 50 provides that the sugar selected from the group consisting of sucrose, fructose, glucose, lactose, and galactose.

In the instant invention, the food material is contacted with an enzyme having esterase activity. The food material contains a fatty acid ester, and a second constituent having a hydroxy

² The transition "consisting essentially of" occupies a middle ground between "comprises" and "consists of". It allows for elements not explicitly recited, but exclude elements that are found in the prior art or that affect a basic or novel characteristic of the invention. See, e.g., In re Garnero, 162 U.S.P.Q. 221 (C.C.P.A. 1969); Ex parte Shepherd, 185 U.S.P.Q. 480 (BOPA 1974); Ex parte Hutchins. 157 U.S.P.Q. 167 (BOPA 1967); see also Zeigler v.

PATENT USSN 09/750,990

group, or as discussed above. Contacting the enzyme with the food material results in two distinct products: (1) the emulsifier, and (2) the second functional ingredient. The second functional ingredient can be an emulsifier, hydrocolloid, preservative, antioxidant, flavoring agent, coloring agent, or viscosity modifier. The present invention results in the in situ formation of two functional ingredients: The emulsifier and the second functional ingredient. That the present invention is taking place in situ, i.e., in the foodstuff itself, and is not a method for preparing a composition to be added to food, is through the claim language stating that the "process [is] for preparing a foodstuff suitable for consumption" and by the claim language calling for "inactivating or denaturing the enzyme to provide the foodstuff".3

Moore relates to the preparation of a triglyceride mixture. Moore does not prepare a "foodstuff" that would comprise inactivated or denatured enzyme, or even a foodstuff as defined in the instant application, because Moore requires 1M HCl to stop the action of the enzyme. A COMPOSITION CONTAINING 1M HCI CANNOT BE CONSIDERED A FOODSTUFF!

That is, Moore is instantly distinguishable from the present invention in that Moore is directed to the preparation of a triglyceride mixture: which does not contain inactivated or denatured enzyme in accordance with step (ii) of the claimed methods, or, which contains 1M HCl and cannot be considered a foodstuff as recited in the claims. Simply, Moore does not teach or suggest a process for preparing a foodstuff that results in the in situ formation of two functional ingredients, as in the instant invention.

In addition, it is noted that claims 54-59 were not subject to the rejection based on Moore, and thus, claims 50 and 54-59 and the claims dependent thereon should be free of this rejection.

Accordingly, Moore does not teach or suggest the instant invention.

Reconsideration and withdrawal of the Section 102(b) rejection based on Moore are respectfully requested.

REQUEST FOR INTERVIEW

If any issue remains as an impediment to allowance, an interview with the Examiner is : respectfully requested. The Examiner is respectfully requested to contact the undersigned to arrange a mutually convenient time and manner for such an interview. It is appreciated that in

Phillips Petroleum Co., 177 U.S.P.Q. 481 (5th Cir. 1973). Thus, the transition "consisting essentially of" also is a means by which claim 44 is patentable over the art, such as Moore and Van Den Ouweland. ³ See infra, footnote 1.

the Final Office Action the Examiner invited the undersigned to contact the Examiner by telephone in response to the previous request for an Interview. An Interview was desired prior to a Final Office Action. The undersigned and Applicants' representatives from Europe would like to schedule a convenient time and manner for the interview if this paper does not result in allowance.

CONCLUSION

In view of the remarks and amendments and attachments herewith and the amendments and remarks of record, the application is in condition for allowance. Consideration and entry of this paper, favorable reconsideration of the application and prompt issuance of a Notice of Allowance, are earnestly solicited. The undersigned looks forward to hearing favorably from the Examiner at an early date.

Respectfully submitted,

FROMMER LAWRENCE & HAUG LLP

Attorneys for Applicants

Thomas J. Kowalski

Reg. No. 32,147

Tel (212) 588-0800

Fax (2120 588-0500

APPENDIX: MARKED VERSION OF AMENDMENT

Kindly amend the application, without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows.

Kindly and new claims 44 to 69, without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows:

- 44. (Amended) A process for preparing a foodstuff suitable for consumption comprising an emulsifier, the process [comprising] consisting essentially of the steps of (iii)contacting a food material containing a fatty acid ester and a second constituent comprising a hydroxy group with an enzyme having esterase activity such that an emulsifier is generated by the enzyme from the fatty acid ester and a second functional ingredient is generated from the second constituent; and
- (iv)inactivating or denaturing the enzyme to provide the foodstuff comprising the emulsifier, the fatty acid ester and the enzyme in an inactive form or a denatured form.
- 45. (Not Amended) The process according to claim 44 wherein the fatty acid ester comprises at least two ester groups.
- 46. (Not Amended)

 The process according to claim 44 wherein the fatty acid
 ester is a triglyceride.
- 47. (Amended) The process according to claim 44 wherein the enzyme having esterase activity [is selected from the group consisting of] has lipase activity, or the enzyme having esterase activity[, derivatives and] is a mixture[s] of enzymes [thereof].
- 48. (Not Amended) The process according to claim 44 wherein the enzyme is isolated from a plant, an animal or a micro-organism.
- The process according to claim 48 wherein the microorganism is selected from the group consisting of Aspergillus niger, Rhizopus delemar, Rhizopus arrhizus, Mucor miehei, Pseudomonas sp., Candida rugosa, Pencillium roqueforti, Pencillium cyclopium, Aspergillus tubingensis, Candida cylindracea, Thermomyces lanuginosus, Mucor cyclopium, Candida antartica, Chromobacterium viscosum, Pseudomonas fluorescens, javanicus, Candida antartica, Chromobacterium viscosum, Bacillus subtilis, mutants and combinations thereof.

- A process for preparing a foodstuff suitable for consumption (Amended) 50. comprising an emulsifier, the process comprising the steps of
- (i) contacting a food material containing a fatty acid ester and a second constituent comprising a hydroxy group with an enzyme having esterase activity such that an emulsifier is generated by the enzyme from the fatty acid ester and a second functional ingredient is generated from the second constituent; and
- (ii) inactivating or denaturing the enzyme to provide the foodstuff comprising the emulsifier, the fatty acid ester and the enzyme in an inactive form or a denatured form;

wherein the second constituent is a sugar [The process according to claim 44 wherein the foodstuff comprises at least the emulsifier and the second functional ingredient, and wherein the emulsifier and the second functional ingredient have been generated from the fatty acid ester and the second constituent of the food material by the enzyme].

- The process according to claim 44 wherein the second (Not Amended) 51. constituent is hydrophilic.
- The process according to claim 44 wherein the second constituent is selected from the group consisting of [a constituent comprising a hydroxy group], polyvalent alcohols, [water,] ethanol, sugars, dextrins, sorbitol, mannitol, fruit acids and hydroxy acids, and mixtures [and derivatives] thereof.
- The process according to claim 44 wherein the second (Not Amended) 53. constituent is glycerol.
- The process according to claim [52] 50 wherein the [second constituent is a] sugar selected from the group consisting of sucrose, fructose, glucose, lactose, and galactose.
- A process for preparing a foodstuff suitable for consumption (Amended) 55. comprising an emulsifier, the process comprising the steps of
- (i) contacting a food material containing a fatty acid ester and a second constituent with an enzyme having esterase activity such that an emulsifier is generated by the enzyme from the fatty acid ester and a second functional ingredient is generated from the second constituent; and
- (ii) inactivating or denaturing the enzyme to provide the foodstuff comprising the emulsifier, the fatty acid ester and the enzyme in an inactive form or a denatured form;

[The process according to claim 52] wherein the second constituent is maltodextrin.

- 56. (Amended) A process for preparing a foodstuff suitable for consumption comprising an emulsifier, the process comprising the steps of
- (i) contacting a food material containing a fatty acid ester and a second constituent comprising a hydroxy group with an enzyme having esterase activity such that an emulsifier is generated by the enzyme from the fatty acid ester and a second functional ingredient is generated from the second constituent; and
- (ii) inactivating or denaturing the enzyme to provide the foodstuff comprising the emulsifier, the fatty acid ester and the enzyme in an inactive form or a denatured form;

[The process according to claim 52] wherein the second constituent is a hydroxy acid selected from the [list] group consisting of citric acid, tartaric acid, lactic acid and ascorbic acid.

- 57. (Amended) A process for preparing a foodstuff suitable for consumption comprising an emulsifier, the process comprising the steps of
- (i) contacting a food material containing a fatty acid ester and a second constituent comprising a hydroxy group with an enzyme having esterase activity such that an emulsifier is generated by the enzyme from the fatty acid ester and a second functional ingredient is generated from the second constituent, and
- (ii) inactivating or denaturing the enzyme to provide the foodstuff comprising the emulsifier, the fatty acid ester and the enzyme in an inactive form or a denatured form;

[The process according to claim 44] wherein the second constituent is [a sugar or] an [sugar] alcohol.

- 58. (Amended) A process for preparing a foodstuff suitable for consumption comprising an emulsifier, the process comprising the steps of
- (i) contacting a food material containing a fatty acid ester and a second constituent comprising a hydroxy group with an enzyme having esterase activity such that an emulsifier is generated by the enzyme from the fatty acid ester and a second functional ingredient is generated from the second constituent; and

(ii) inactivating or denaturing the enzyme to provide the foodstuff comprising the emulsifier, the fatty acid ester and the enzyme in an inactive form or a denatured form;

[The process according to claim 44] wherein the second constituent is ascorbic acid, or a protein hydrolysate.

- 59. (Amended) A process for preparing a foodstuff suitable for consumption comprising an emulsifier, the process comprising the steps of
- (i) contacting a food material containing a fatty acid ester and a second constituent comprising a hydroxy group with an enzyme having esterase activity such that an emulsifier is generated by the enzyme from the fatty acid ester and a second functional ingredient is generated from the second constituent; and
- (ii) inactivating or denaturing the enzyme to provide the foodstuff comprising the emulsifier, the fatty acid ester and the enzyme in an inactive form or a denatured form;

[The process according to claim 44] wherein the second constituent is selected from the group consisting of proteins, amino acids, [protein hydrolysates,] peptides, [derivatives] and mixtures thereof

- mixtures thereof.

 60. (Amended) The process according to any one of claims 44, 50 or 54-59
 wherein the foodstuff is selected from the group consisting of baked goods, confectionery, frozen products, dairy products, meat products, edible oils and fats, and fine foods.
- 61. (Not Amended) The process according to claim 60 wherein the foodstuff is a baked good selected from the group consisting of breads, cakes, muffins, doughnuts, biscuits, crackers and cookies.
- 62. (Not Amended) The process according to claim 60 wherein the foodstuff is a confectionery selected from the group consisting of candies, caramels, chocolate and puddings.
- 63. (Not Amended)

 The process according to claim 60 wherein the foodstuff is a frozen dairy product.
- 64. (Amended) The process according to claim 63 wherein the [foodstuff is a] frozen dairy product is selected from the group consisting of ice cream and ice milk.
- 65. (Amended) The process according to claim 60 wherein the foodstuff is a [frozen] dairy product selected from the group consisting of coffee cream, whipped cream, custard cream, milk drinks and yoghurts.
- 66. (Amended) The process according to claim 60 wherein the foodstuff is a processed meat product or a spread.
- 67. (Amended) The process according to claim 60 wherein the foodstuff is an edible oil or fat selected from the group consisting of water in oil emulsions, oil in water emulsions, margarine, and shortening [and spreads].

PATENT USSN 09/750,990 674509-2028

- 68. (Amended) The process according to claim 60 wherein the foodstuff is a fine food selected from the group consisting of sauces and mayonnaise.
- 69. (Amended) A foodstuff obtained by a process as defined in claim 44, 50 or 54-